

COLORADO SCHOOL OF MINES

(Admissions)

1. The Operations Research Program (OR) is pursued through the Division of Economics and Business. The following is a list of admission policies for students entering the OR program:

a. Candidates must have a bachelor's degree from an accredited United States Institution or proof of equivalent training at an institution outside the United States.

b. No specific grade-point average is required. Students with GPAs of less than 3.0 on a 4.0 scale will, however, be expected to show other evidence or promise of ability to satisfactorily pursue advanced studies and research. An example of such evidence are grades of "B" or better in graduate courses taken after completion of an undergraduate degree.

c. Candidates are required to take the Graduate Record Examination or GMAT. Good quantitative and/or analytical scores, however, can serve as evidence of ability to satisfactorily pursue advanced studies and research in the absence of either an adequate GPA or previously completed graduate work. By "good" scores, we mean in the high 600's or above.

d. Candidates should have adequate subject preparation for the Operations Research Program. Admission to the Division of Economics and Business is aided by a business administration or economics background since the departmental core is in economics. Those without an undergraduate course in calculus, microeconomics, macroeconomics, statistics and accounting will be routinely assigned these courses as deficiencies. It is important to note that all deficiencies may be taken in summer school, which usually begins the third week in June.

e. Deadlines. Candidates should apply at least six weeks before the start of the term in which they wish to be admitted. Customarily, students start the program in the fall semester, which usually begins the third week in August.

Point of Contact.

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Division of Economics and Business

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(Program of Study)

1. FA49 officers will complete the degree requirements for a Master of Science degree in Mineral Economics (Operations Research Option). FA49 officers will complete either a minimum of 30 semester hours and a thesis, or a minimum of 39 semester hours of course work and a major project in lieu of a thesis. A minor may also be obtained.

2. The Colorado School of Mines is on a semester system. Assuming no deficiency undergraduate courses are required, and that courses are taken during the summer session, officers will complete the requirements for an M.S. degree in four semesters (21 months).

3. Prerequisites: Those without an undergraduate course in calculus, microeconomics, macroeconomics, statistics, and accounting will be routinely assigned these courses as deficiencies. It is important to note that all deficiencies may be taken in summer school, which usually begins the third week in June.

4. Master's Program. A student-specific curriculum is determined by the individual student and his or her advisor. Each curriculum will be slightly different, depending on the individual student's interest and long-range professional goals. Credit for up to 12 hours of graduate work outside CSM in appropriate courses will be granted as determined by the advisor and the director of graduate programs for the department.

- Core Requirements

- (1) Operations Research (12 hours)

- EBOR 525 Operations Research I EBOR 526 Operations Research II

- EBOR 555 Linear Programming EBOR 513 Industrial Psychology

- (2) Economics (18 hours)

- EBGN 511 Microeconomics EBGN 512 Macroeconomics

- EBGN 510 Resource Economics EBGN 504 Economic Evaluation

EBGN 409 Mathematical Economics EBGN 590 Econometrics
and Forecasting

- Most students are expected to take the following electives:
EBGN 559 Simulation EBGN 558 Geometric Programming
EBGN 556 Network Flows EBGN 554 Integer Programming
- Other electives available are:
EBGN 528 Operations Research Projects
EBGN 560 Decision Analysis
- Minor. Completion of a minor, consisting of a minimum of nine semester hours (three courses) is optional. Minors may be taken in another department, such as Engineering, or Mathematical and Computer Sciences.
- Thesis. A thesis is expected to be on a verifiable application of Operations Research (preferably within the student's area of professional interest). Each student in the thesis option, during the final semester of study, must pass an oral defense of their thesis. The oral defense may also cover course work.

5. PhD. Program. A student may also obtain a PhD in the division with a specialization in Operations Research. For the PhD degree, students complete all the MS core courses identified above, and also take EBGN 611 (Advanced Microeconomics), EBGN 690 (Advanced Econometrics), and EBGN 695 (Research Philosophy). A qualifying examination and a comprehensive examination plus a dissertation are required. Further details may be obtained by writing or calling the above

Point of Contact.

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